

CITY OF NEWTON

**POST-RETIREMENT BENEFITS ANALYSIS
AS OF JUNE 30, 2008**

AUGUST 19, 2008

FINANCIAL RISK ANALYSTS

August 19, 2008

Mr. David C. Wilkinson
Comptroller
City of Newton
Commonwealth Avenue and Walnut St.
Newton Centre, MA 02159

Dear David:

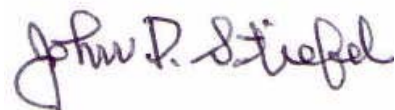
Enclosed please find our report regarding the indicated post-retirement liabilities as of June 30, 2008 for the City. The liability calculation is in accordance with Governmental Accounting Standards Board Statement 45 (GASB-45).

It has been a pleasure being of service to you again on this project. If after reviewing this report you have any questions please do not hesitate to call.

Sincerely,



Robert Van Epps, FCAS, MAAA
Principal



John D. Stiefel, FSA, MAAA
Associated Consultant

CITY OF NEWTON

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INTRODUCTION

Financial Risk Analysts, LLC has been retained by the City of Newton (the City) to provide an actuarial valuation of the City's medical and life insurance post-retirement benefits program as of June 30, 2008. The purpose of this valuation is to calculate the City's GASB-45 liability as of June 30, 2008 for these benefits. The City needs to comply with GASB-45 as of the end of its current fiscal year.

Medical and life insurance are the two most common types of other (than pension) post-retirement employee benefits (OPEB) provided by an employer to retirees and their beneficiaries.

GASB-45 requires that public entities begin accruing the expected future costs of OPEB over the expected future employment period of employees, much like they now do for pension benefits. The effective date of GASB-45 is the end of fiscal years beginning on or after December 16, 2006 for public entities with annual revenue of more than \$100 million. The effective date is one year later for public entities with annual revenue between \$10 million and \$100 million and two years later for public entities with annual revenue under \$10 million.

The City presently provides life and health insurance benefits for active and retired employees and their covered dependents. The City has reported to us 2,491 active employees, 476 pre-Medicare retirees, 1,817 Medicare retirees and 176 over age 65 non-Medicare retirees who have elected health insurance.

Health insurance benefits provided to active employees are self insured while health insurance benefits provided to Medicare retirees are fully insured. Life insurance benefits provided by the City are fully insured. For health insurance, active employees and retirees not on Medicare have a choice among the Harvard Plan, Tufts-High Option Plan and Tufts-Low Option Plan. Most

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retirees on Medicare are in the Tufts Medicare Complement Plan. For life insurance, the only option is a flat \$5,000 benefit which does not reduce at retirement. As required by Massachusetts law, retirees not on Medicare have the same benefit options as active employees.

A detailed description of the City's census, benefit, and premium information is presented on Exhibits 10, 11, and 12.

Additional note – the City currently reimburses 80% of the Medicare Part B premium for Medicare retirees. If the City did not do this, the Actuarial Accrued Liability (at 3.75% interest) would be 15% lower. More details of this calculation are shown on Exhibit 2.1. line C1.

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CONDITIONS AND LIMITATIONS

DATA

Within this report we used data and other information provided to us by the City. This data consisted of the following:

- Census Information - the demographics of the active, pre-Medicare retiree and Medicare retiree population covered for medical and life insurance benefits as of the date of the most recent pension valuation. For active employees, date of hire was also included.
- Benefit Information - a description of the different health and life insurance plans available to participants.
- Funding Information – a description of how the life and health insurance plans are funded including the contributions required from employees and retirees.
- Premium Rates – the premium rates for the various plans and the percentage of each premium rate that the City pays.
- Life Insurance In-Force Information – a summary of the life insurance schedules for actives and retirees and the participant contributions required.
- Requirements for Retirement – the age/service requirements for retirement with an unreduced pension benefit and the amount of benefit reduction for early retirement.
- Probabilities of Retirement – the probability that a general or uniformed employee eligible to retire will actually retire.
- Retirement Election Rates - The percentage of active participants who opt to continue their life and health insurance benefits (and pay the associated premiums) at retirement.

Although the data supplied were reviewed for purposes of reasonability, we have not independently audited or verified this information and we assume it to be accurate and complete. The results of our analysis will be contingent upon the reliability of the information supplied to us and such reliability is the responsibility of the City. Should the City become aware of any significant discrepancies in the data reported to us, we should be notified of such discrepancies and this report will be amended, if necessary.

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UNCERTAINTY

Actuarial projections, by their nature, are estimates of future contingent events, which cannot be known with certainty. The City's ultimate liability for medical and life insurance benefits will be subject to events that have yet to occur such as the future employee attrition rate, retirements, and particularly interest rates and medical cost inflation.

While we believe the results presented in this report are reasonable and reflect the use of accepted actuarial principles and standards of practice it is possible that the actual future OPEB liability of the City will differ, perhaps materially, from what we have projected herein. Nothing in this report should be construed as a warranty or guarantee as to the adequacy of the liability estimates contained herein.

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DISTRIBUTION AND USE

This report is provided solely for the use of the City of Newton in evaluating its OPEB liability as of June 30, 2008. A copy of this report may also be provided to the City's auditor with the proviso that the report is copied in its entirety and that each party receiving a copy of this report agrees to not distribute the report to any other third party.

We request that the City inform us of distribution of this report to parties other than those referenced above.

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REQUIRED DISCLOSURES

Required Information as of June 30, 2008

As displayed on Exhibit 1, the following presents a summary of the results of our analysis.

City of Newton - GASB-45 Required Disclosures		
	Discount Rate	
	<u>3.75%</u>	<u>7.75%</u>
A. Expected Post-Retirement Benefit Obligation (EPBO)	\$625.70	\$319.36
B. Funded Status		
1. Actuarial Accrued Liability		
Active Employees	\$152.89	\$62.20
Retirees	\$280.07	\$192.04
Total AAL	\$432.96	\$254.24
2. Actuarial Value of Assets	\$0.00	\$0.00
3. Unfunded Actuarial Accrued Liability (1)-(2)	\$432.96	\$254.24
4. Funded Ratio (2)/(3)	0%	0%
5. Annual Covered Payroll	\$201.97	\$201.97
6. Ratio of Unfunded AAL to Covered Payroll	2.144	1.259
C. Annual Required Contribution		
1. Normal Cost (Service Cost)	\$12.05	\$4.03
2. Amortization of Unfunded Actuarial Accrued Liability	\$23.39	\$20.46
3. Annual Required Contribution (ARC) (1)+(2)	\$35.44	\$24.49
D. OPEB Cost		
1. ARC	\$35.44	\$24.49
2. Interest on Net OPEB Obligation	\$0.00	\$0.00
3. Adjustment to ARC	\$0.00	\$0.00
4. Annual OPEB Cost (1)+(2)+(3)	\$35.44	\$24.49
E. Net OPEB Obligation		
1. Net OPEB Obligation-beginning of year	\$0.00	\$0.00
2. Annual OPEB Cost	\$35.44	\$24.49
3. Expected Contributions during the year	\$13.43	\$13.43
4. Net OPEB Obligation-end of year estimate (1)+(2)-(3)	\$22.01	\$11.06

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The following is an explanation of the above:

Expected Post-Retirement Benefit Obligation (EPBO)-This is the present value of the future post-retirement life and health insurance benefits for all currently retired employees and active employees eligible for those benefits. For active employees, the EPBO includes the full present value of benefits even though some employees have not yet fully earned or vested in those benefits. The City needs to be aware of this liability but does not need to disclose or recognize it on any of its financial statements.

Actuarial Accrued Liability (AAL) – This is also known as the Accumulated Post-Retirement Benefit Obligation (APBO) or the Transition Obligation. This is that portion of the EPBO that has been accrued to date. For existing retirees and active employees who have fully earned their benefit, the AAL equals the EPBO. Upon implementation of GASB-45, the APBO is the transition obligation (current liability) that must be recognized on the City's balance sheet if the City chooses immediate recognition. Alternatively, the City can choose to amortize the current APBO. GASB-45 permits amortization over a period of from 10 to 30 years.

Plan Assets – The amount of assets held in trust to fund the plan (if the plan is funded).

Unfunded Actuarial Accrued Liability – The excess of the AAL over the plan assets.

Normal Cost- Also known as the Service Cost. This is the portion of the EPBO for active employees attributable to employee service during the year. Based on discussion with the City, we used level annual Service Costs.

Amortization of Unfunded Accrued Liability -This is the annual amortization of the AAL (Transition Obligation) if the City chooses to amortize the AAL. If the City chooses to amortize the AAL, the amortization cost should be booked as a current year expense. We used a 30 year period for purposes of amortizing the AAL. This is the maximum period of time allowed under GASB and is the same as the City's pension plan requirement for retirement with an unreduced pension benefit. As with the Service Cost, we used level annual amortization payments.

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Annual Required Contribution (ARC)-This is the total amount that should be booked as a current year expense. During the initial year of implementation of GASB-45, ARC is equal to the sum of the Normal Cost (Service Cost) and Amortization of Actuarial Accrued Liability (Transition Obligation). GASB-45 recommends, but does not require, that the ARC actually be contributed (funded) each year.

Expected Contributions During the Year – This is the amount of OPEB payments the City is expected to make during the upcoming fiscal year.

Net OPEB Obligation – End of Year Estimate – The excess of the ARC over the Expected Benefit Payments. This represents the increase in current year cost associated with funding vs. not funding the OPEB.

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ANALYSIS

Assumptions

1. **Interest discount rate**-3.75% per year, net of expenses, for an unfunded plan. 7.75% per year, net of expenses, if funded. GASB-45 requires that the selection of an interest discount rate be based on the expected long term rate of return on the (General Fund) assets expected to be available to pay the benefits when due.
2. **Trend**- Medical Costs are assumed to increase each year according to the following schedule:

<u>Year</u>	<u>Medical Trend</u>
2008	7.2%
2009	7.2%
2010	7.2%
2011	7.2%
2012	7.2%
2013	7.2%
2014	7.1%
2015	7.1%
2020	6.9%
2025	6.8%
2030	6.7%
2040	6.2%
2050	5.9%
2060	5.8%
2070	5.7%
2080+	5.2%

The above trend rates were developed using the baseline projection of the SOA Long-Run Medical Cost Trend Model. These trend rates were based on the fact that the City's recent rate increase was minimal (i.e. 6 out of 9 plans had no increase) and on the following assumptions:

Rate of Inflation 3.2%
Rate of Growth in Real Income / GDP per capita 1.9%
Income Multiplier for Health Spending 1.4
Extra Trend due to Technology and other factors 1.2%
Health Share of GDP Resistance Point 25.0%
Year for Limiting Hest Growth to GDP Growth 2075

The Society of Actuaries' (SOA's) Long-Run Medical Cost Trend Model and its baseline projection are based on an econometric analysis of historical US medical expenditures and the judgments of experts in the field. The long-run baseline projection and input

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variables have been developed under the guidance of an SOA Project Oversight Group. The above schedule represents a reasonable medical trend projection for the current plan provisions and demographics of the City's Retiree Welfare Benefits Plan, and no changes to these baseline assumptions are necessary.

We note that a level 1% increase in assumed trend will increase the City's liability by about 18%.

3. **Amortization Period**-Thirty years. This is the maximum period permitted by GASB-45. GASB-45 permits amortization payments to increase at a rate not to exceed projected salary growth. We assumed level amortization payments, which we think are more realistic for budgeting purposes.
4. **Retirement Eligibility**-As prescribed by the terms of the City's Retirement System.
5. **Marital Status**-Active participants are assumed to keep their current marital status upon retirement.
6. **Turnover**-Representative values of assumed annual turnover rates for general and uniformed employees are as follows.

Age Group	General Employees	Uniformed Employees
<20	15.00%	1.50%
20-24	13.13%	1.50%
25-29	10.12%	1.50%
30-34	8.33%	1.46%
35-39	6.78%	1.22%
40-44	5.96%	0.28%
45-49	5.13%	0.03%
50-54	3.23%	0.03%
55-59	2.45%	0.00%
60-64	2.07%	0.00%
65-69	1.94%	0.00%
70-74	1.22%	0.00%
75+	0.00%	0.00%

7. **Mortality**-Mortality assumptions are used to project the expected number of employees who will be receiving future benefits. For deaths after retirement we used mortality rates based on the RP-2000 Healthy Annuitant Table. For deaths before retirement we used representative mortality rates ranging from 0.04% at age 25 to 0.61% at age 60 for all male employees and 0.02% at age 25 to 0.48% at age 60 for all female employees.
8. **Disability**-Disability assumptions are used to project the number of people who will retire early due to disability. The possibility of disability was accounted for by assuming average retirement ages that were 1 year younger than were observed by the City (see (10) below)

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9. **Requirements for Retirement**-The City has informed us it requires attainment of age 65 for general employees to retire with an unreduced pension benefit. For uniformed employees this age is 55. Early retirement is available with twenty years of service with a reduced benefit. Retirement is mandatory at age 65 for uniformed employees.
10. **Age at Retirement**-Representative assumed average retirement ages are shown below. These values are consistent with the requirements for retirement stated above, the input provided by the City and the adjustment for disability retirements (see (8) above).

<u>Age</u>	<u>General Employees</u>	<u>Uniformed Employees</u>
45	63	58
50	63	59
55	64	61
60	66	64
62	67	65
65	69	65
69	72	69
70	72	70

11. **Retirement Election Rates**-The City provided us data for each group showing total retirees and how many retirees have elected to continue post-retirement benefits and pay the associated premiums. That data showed that retirement election rates have been as follows.

	<u>All Employees</u>
Health Insurance	100%
Life Insurance	45%

12. **Plan Changes**-The City has informed us there are no significant changes in eligibility, plan provisions or required contributions for health or life insurance benefits that have been announced to employees for future plan years. We assumed the current benefits will remain in effect for all future years.
13. **Expenses**- We did not make an explicit assumption for expenses because our assumed interest discount rates are net of expenses.

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Methodology

The following is a summary of the methodology employed in our analysis.

1. Determine current annual subsidy for life and health insurance for the pre-Medicare retirees, Medicare retirees and retirees over age 65 not on Medicare. We used the most recently available census data, current premiums, participant contribution requirements and age-sex adjustment factors to make these calculations.

2. Calculate the EPBO. This is the present value of future subsidies for life and health insurance for the actives, pre-Medicare retirees, retirees over 65 not on Medicare and Medicare retirees. Separate calculations were required for active general and active uniformed employees.

3. Calculate the AAL from the EPBO and the active employee age and service information from the census.

4. Calculate the Normal Cost, Amortization of AAL, ARC (Annual Required Contribution) and Unrecognized Net Transition Obligation.

We used the Projected Unit Credit actuarial cost method to make these calculations.

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SCHEDULES OF EMPLOYER CONTRIBUTIONS

The schedules below are based on the normal cost and amortization of the unfunded actuarial accrued liability calculated as of June 30, 2008, future normal costs increasing at 5.0% per year and future amortization payments increasing at the assumed future healthcare trend rates. Schedules are shown for a 3.75% discount rate and a 7.75% discount rate.

Schedule of Employer Contributions (\$millions)
3.75% Discount Rate

Fiscal Year Ending in	Normal Cost	Amortization Payment	Total City ARC
2008	\$12.05	\$23.39	\$35.44
2009	\$12.65	\$25.07	\$37.73
2010	\$13.29	\$26.88	\$40.16
2011	\$13.95	\$28.81	\$42.76
2012	\$14.65	\$30.89	\$45.54
2013	\$15.38	\$33.11	\$48.49
2014	\$16.15	\$35.46	\$51.61
2015	\$16.96	\$37.98	\$54.94
2016	\$17.80	\$40.66	\$58.47
2017	\$18.69	\$43.52	\$62.21
2018	\$19.63	\$46.56	\$66.18
2019	\$20.61	\$49.79	\$70.40
2020	\$21.64	\$53.22	\$74.86
2021	\$22.72	\$56.88	\$79.61
2022	\$23.86	\$60.79	\$84.64
2023	\$25.05	\$64.94	\$90.00
2024	\$26.30	\$69.37	\$95.68
2025	\$27.62	\$74.09	\$101.71
2026	\$29.00	\$79.11	\$108.11
2027	\$30.45	\$84.46	\$114.91
2028	\$31.97	\$90.16	\$122.13
2029	\$33.57	\$96.21	\$129.78
2030	\$35.25	\$102.66	\$137.91
2031	\$37.01	\$109.49	\$146.50
2032	\$38.86	\$116.71	\$155.58
2033	\$40.81	\$124.36	\$165.16
2034	\$42.85	\$132.44	\$175.29
2035	\$44.99	\$140.98	\$185.97
2036	\$47.24	\$150.01	\$197.24
2037	\$49.60	\$159.53	\$209.13
2038	\$52.08	\$169.58	\$221.66

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Schedule of Employer Contributions (\$millions) 7.75% Discount Rate

Fiscal Year Ending in		Normal Cost		Amortization Payment		Total City ARC
2008		\$4.03		\$20.46		\$24.49
2009		\$4.23		\$21.93		\$26.16
2010		\$4.44		\$23.51		\$27.96
2011		\$4.67		\$25.21		\$29.87
2012		\$4.90		\$27.02		\$31.92
2013		\$5.14		\$28.97		\$34.11
2014		\$5.40		\$31.02		\$36.42
2015		\$5.67		\$33.22		\$38.90
2016		\$5.95		\$35.57		\$41.52
2017		\$6.25		\$38.07		\$44.32
2018		\$6.56		\$40.72		\$47.29
2019		\$6.89		\$43.55		\$50.44
2020		\$7.24		\$46.56		\$53.79
2021		\$7.60		\$49.76		\$57.36
2022		\$7.98		\$53.17		\$61.15
2023		\$8.38		\$56.81		\$65.19
2024		\$8.80		\$60.68		\$69.48
2025		\$9.24		\$64.81		\$74.05
2026		\$9.70		\$69.20		\$78.90
2027		\$10.18		\$73.88		\$84.07
2028		\$10.69		\$78.86		\$89.55
2029		\$11.23		\$84.16		\$95.39
2030		\$11.79		\$89.80		\$101.59
2031		\$12.38		\$95.77		\$108.15
2032		\$13.00		\$102.09		\$115.09
2033		\$13.65		\$108.78		\$122.43
2034		\$14.33		\$115.85		\$130.18
2035		\$15.05		\$123.32		\$138.37
2036		\$15.80		\$131.22		\$147.01
2037		\$16.59		\$139.55		\$156.14
2038		\$17.42		\$148.34		\$165.76

CITY OF NEWTON

GASB 45 DETERMINATION

REQUIRED DISCLOSURES-SUMMARY

(\$ millions)

3.75% Interest

	<u>Active</u>	<u>Retired</u>	<u>Total</u>
A. Expected Post-Retirement Benefit Obligation	\$345.63	\$280.07	\$625.70
B. Actuarial Accrued Liability	\$152.89	\$280.07	\$432.96
C. Plan Assets			\$0.00
D. Unfunded Actuarial Accrued Liability			\$432.96
E. Service Cost (Normal Cost)	\$12.05	\$0.00	\$12.05
F. Amortization of unfunded accrued liability	\$8.26	\$15.13	\$23.39
G. Annual Required Contribution (ARC)	\$20.31	\$15.13	\$35.44
H. Unrecognized Net Transition Obligation	\$144.63	\$264.94	\$409.57
I. Expected Benefit (Premium) Payments	n/a	\$13.43	\$13.43
J. Increase in Annual Cost to Fund the Plan			\$22.01

A-B. Exhibit 2.1

C. Since plan is not funded, current assets = 0.

D. B - C

E-H. Exhibit 2.1

I. These are the City's share of the annual retiree premiums.

J. G - I

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Exhibit 1.1

CITY OF NEWTON

GASB 45 DETERMINATION

REQUIRED DISCLOSURES-SUMMARY

(\$ millions)

7.75% Interest

	<u>Active</u>	<u>Retired</u>	<u>Total</u>
A. Expected Post-Retirement Benefit Obligation	\$127.32	\$192.04	\$319.36
B. Actuarial Accrued Liability	\$62.20	\$192.04	\$254.24
C. Plan Assets			\$0.00
D. Unfunded Actuarial Accrued Liability			\$254.24
E. Service Cost (Normal Cost)	\$4.03	\$0.00	\$4.03
F. Amortization of unfunded accrued liability	\$5.01	\$15.45	\$20.46
G. Annual Required Contribution (ARC)	\$9.04	\$15.45	\$24.49
H. Unrecognized Net Transition Obligation	\$57.19	\$176.59	\$233.78
I. Expected Benefit (Premium) Payments	n/a	\$13.43	\$13.43
J. Increase in Annual Cost to Fund the Plan			\$11.06

A-B. Exhibit 2.2

C. Since plan is not funded, current assets = 0.

D. B - C

E-H. Exhibit 2.2

I. These are the City's share of the annual retiree premiums.

J. G - I

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Exhibit 1.2

CITY OF NEWTON
GASB 45 DETERMINATION

Exhibit 2.1

REQUIRED DISCLOSURES-DETAIL

(\$ millions)

3.75% Interest

	Active Employees			Retirees			Total
	<u>General</u> (1)	<u>Uniformed</u> (2)	<u>Total</u> (3)=(1)+(2)	<u>Pre-Medicare</u> (4)	<u>Age 65+ Not on MC</u> (5)	<u>Medicare</u> (6)	<u>Total</u> (7)=(3)+(4)+(5)+(6)
A. Number of Members Generating a Liability (Medical)	2,200	291	2,491	476	176	1,817	4,960
B. Expected Post Retirement Benefit Obligation							
Medical/Rx/Vision	\$271.09	\$74.31	\$345.40	\$128.96	\$59.07	\$89.77	\$623.20
Dental	\$0.00	\$0.00	\$0.00	\$0.00	Incl in PMR	Incl in PMR	\$0.00
Life	\$0.23	Incl in Gen	\$0.23	\$2.27	Incl in PMR	Incl in PMR	\$2.50
Total	\$271.32	\$74.31	\$345.63	\$131.23	\$59.07	\$89.77	\$625.70
C. Actuarial Accrued Liability	\$122.33	\$30.56	\$152.89	\$131.23	\$59.07	\$89.77	\$432.96
C1. Actuarial Accrued Liability if no M/C Part B Reimb.	\$99.43	\$25.13	\$124.56	\$113.49	\$59.07	\$70.33	\$367.45
D. Service Cost (Normal Cost)	\$9.70	\$2.35	\$12.05	\$0.00	\$0.00	\$0.00	\$12.05
E. Amortization Factor	18.50	18.50	18.50	18.50	18.50	18.50	18.50
F. Amortization of Actuarial Accrued Liability	\$6.61	\$1.65	\$8.26	\$7.09	\$3.19	\$4.85	\$23.39
G. Annual Required Contribution	\$16.31	\$4.00	\$20.31	\$7.09	\$3.19	\$4.85	\$35.44
H. Unamortized Portion of Actuarial Accrued Liability	\$115.72	\$28.91	\$144.63	\$124.14	\$55.88	\$84.92	\$409.57

A. Exhibit 12

B. Exhibits 4 and 5. Dental EPBO = \$0 because there is only 1 retiree dental plan and retirees pay the full cost.

C. For retired lives AAL = EPBO. For active lives AAL = EPBO x C from Exhibit 3

C1 If the City didn't reimburse 80% of the Medicare Part B, premium, Actuarial Accrued Liability would be \$363.90.
This represents a savings of 15%

D. For retired lives Service Cost = 0. For active lives Service Cost = EPBO X D from Exhibit 3

E. Amortization factor = present value at 3.75% interest of a 30-year annuity due

F. C/E

G. D + F

H. C - F

CITY OF NEWTON
GASB 45 DETERMINATION

Exhibit 2.2

REQUIRED DISCLOSURES-DETAIL
(\$ millions)
7.75% Interest

	Active Employees			Retirees			Total
	General (1)	Uniformed (2)	Total (3)=(1)+(2)	Pre- Medicare (4)	Age 65+ Not on MC (5)	Medicare (6)	Total (7)=(3)+(4)+(5)+(6)
A. Number of Members Generating a Liability (Medical)	2,200	291	2,491	476	176	1,817	4,960
B. Expected Post Retirement Benefit Obligation							
Medical/Rx/Vision	\$103.42	\$23.83	\$127.25	\$82.60	\$41.66	\$66.00	\$317.51
Dental	\$0.00	\$0.00	\$0.00	\$0.00	Incl in PMR	Incl in PMR	\$0.00
Life	\$0.07	Incl in Gen	\$0.07	\$1.78	Incl in PMR	Incl in PMR	\$1.85
Total	\$103.49	\$23.83	\$127.32	\$84.38	\$41.66	\$66.00	\$319.36
C. Actuarial Accrued Liability	\$52.40	\$9.80	\$62.20	\$84.38	\$41.66	\$66.00	\$254.24
D. Service Cost (Normal Cost)	\$3.27	\$0.75	\$4.03	\$0.00	\$0.00	\$0.00	\$4.03
E. Amortization Factor	12.42	12.42	12.42	12.42	12.42	12.42	12.42
F. Amortization of Actuarial Accrued Liability	\$4.22	\$0.79	\$5.01	\$6.79	\$3.35	\$5.31	\$20.46
G. Annual Required Contribution	\$7.49	\$1.54	\$9.04	\$6.79	\$3.35	\$5.31	\$24.49
H. Unamortized Portion of Actuarial Accrued Liability	\$48.18	\$9.01	\$57.19	\$77.59	\$38.31	\$60.69	\$233.78

- A. Exhibit 12
B. Exhibits 4 and 5. Dental EPBO = \$0 because there is only 1 retiree dental plan and retirees pay the full cost.
C. For retired lives AAL = EPBO. For active lives AAL = EPBO x C from Exhibit 3
D. For retired lives Service Cost = 0. For active lives Service Cost = EPBO X D from Exhibit 3
E. Amortization factor = present value at 7.75% interest of a 30-year annuity due
F. C/E
G. D + F
H. C - F

CITY OF NEWTON
GASB 45 DETERMINATION

ACTIVE EMPLOYEE ACCRUED BENEFITS
 3.75% Interest

	Active Employees	
	<u>General</u>	<u>Uniformed</u>
	(1)	(2)
A. Average Projected Service at Retirement = Attribution Period	30.3	31.8
B. Weighted Average Service to Date	13.7	13.1
C. Weighted Average Percent of Retirement Benefits Accrued to Date	45.1%	41.1%
D. Percent of OPEB Accrued in Fiscal Year 2008	3.6%	3.2%

-
- A. Calculated from the census data
 B. Calculated from the census data
 C. B/A
 D. Calculated from the census data

CITY OF NEWTON
GASB 45 DETERMINATION

ACTIVE EMPLOYEE ACCRUED BENEFITS
 7.75% Interest

	Active Employees	
	<u>General</u>	<u>Uniformed</u>
	(1)	(2)
A. Average Projected Service at Retirement = Attribution Period	31.8	31.8
B. Weighted Average Service to Date	16.1	13.1
C. Weighted Average Percent of Retirement Benefits Accrued to Date	50.6%	41.1%
D. Percent of OPEB Accrued in Fiscal Year 2008	3.2%	3.2%

-
- A. Calculated from the census data
 B. Calculated from the census data
 C. B/A
 D. Calculated from the census data

CITY OF NEWTON
GASB 45 DETERMINATION

EXPECTED POST-RETIREMENT BENEFIT OBLIGATION - LIFE INSURANCE

3.75% Interest

	<u>Active</u> (1)	<u>Retired</u> (2)	<u>Total</u> (3)=(1)+(2)
A. Number of Contracts	1,003	1,070	2,073
B. Assumed Retirement Age	63	74	
C. Average Benefit per Insured at Retirement	5,000	5,000	
D. Net Single Premium per \$1,000	489.43	649.23	
E. Discount Factor for Actives to Assumed Retirement Age	0.31	1.00	
F. Percent Electing Life Insurance at Retirement	45.1%	100.0%	
G. Percent of Actual Cost Paid by City	65.5%	65.5%	65.5%
H. Expenses	0.0%	0.0%	0.0%
I. Present Value of Future Subsidy = EPBO (\$ millions)	0.23	2.27	2.50
J. EPBO Per Contract	225.59	2,126	1,206.54

A Exhibit 12

B Exhibit 6

C Exhibit 9

D For actives, this is the net single premium at the assumed retirement age.

For retirees, this is the net single premium at the current average age.

E Based on avg current age of actives, expected retirement age, 3.75% interest and assumed mortality and turnover.

F For actives, Exhibit 12

G Exhibit 6

H Expenses are 0% because the assumed interest rate is net of expenses.

I $A \times (C/1000) \times D \times E \times F \times G \times (1+H)$

J 1/A

CITY OF NEWTON
GASB 45 DETERMINATION

EXPECTED POST-RETIREMENT BENEFIT OBLIGATION - LIFE INSURANCE
 7.75% Interest

	<u>Active</u> (1)	<u>Retired</u> (2)	<u>Total</u> (3)=(1)+(2)
A. Number of Contracts	1,003	1,070	2,073
B. Assumed Retirement Age	63	74	
C. Average Benefit per Insured at Retirement	5,000	5,000	
D. Net Single Premium per \$1,000	265.05	445.23	
E. Discount Factor for Actives to Assumed Retirement Age	0.15	1.00	
F. Percent Electing Life Insurance at Retirement	45.1%	100.0%	
G. Percent of Actual Cost Paid by City	74.7%	74.7%	74.7%
H. Expenses	0.0%	0.0%	0.0%
I. Present Value of Future Subsidy = EPBO (\$ millions)	0.07	1.78	1.85
J. EPBO Per Contract	67.88	1,662	890.92

-
- A Exhibit 12
 B Exhibit 6
 C Exhibit 9
 D For actives, this is the net single premium at the assumed retirement age.
 For retirees, this is the net single premium at the current average age.
 E Based on avg current age of actives, expected retirement age, 7.75% interest and assumed mortality and turnover.
 F For actives, Exhibit 12
 G Exhibit 6
 H Expenses are 0% because the assumed interest rate is net of expenses.
 I $A \times (C/1000) \times D \times E \times F \times G \times (1+H)$
 J $1/A$

CITY OF NEWTON
GASB 45 DETERMINATION

EXPECTED POST-RETIREMENT BENEFIT OBLIGATION - MEDICAL, Rx AND VISION
 3.75% interest

	Active Employees		Retirees			Total (6)
	(1)	(2)	(3)	(4)	(5)	
	<u>General</u>	<u>Uniformed</u>	<u>Pre-Medicare</u>	<u>Age 65+ Not on MC</u>	<u>Medicare</u>	
A. Number of Contracts	2,200	291	476	176	1,817	4,960
B. Annual Subsidy per Contract	n/a	n/a	\$16,602	\$22,016	\$4,159	
C. PV of Future Subsidies (\$millions) for All Employees	\$271.09	\$74.31	\$128.96	\$59.07	\$89.77	\$623.21
D. Percent Expected to Elect Medical at Retirement	100%	100%	100%	100%	100%	
E. Expenses	0%	0%	0%	0%	0%	0%
F. Expected Post-Retirement Benefit Obligation (\$millions)	\$271.09	\$74.31	\$128.96	\$59.07	\$89.77	\$623.20
G. Expected Post-Retirement Benefit Obligation per Contract	\$123,223	\$255,361	\$270,924	\$335,625	\$49,406	\$125,645

-
- A. Exhibit 12.
 B. Exhibit 7
 C. Calculated from B and the age and sex of each contractholder.
 D. Calculation only considered participants who actually elected medical.
 E. Expenses are 0% because the assumed interest rate is net of expenses.
 F. $C \times D \times (1 + E)$
 G. F/A

CITY OF NEWTON
GASB 45 DETERMINATION

EXPECTED POST-RETIREMENT BENEFIT OBLIGATION - MEDICAL, Rx AND VISION
 7.75% interest

	Active Employees		Retirees			<u>Total</u> (6)
	(1)	(2)	(3)	(4)	(5)	
	<u>General</u>	<u>Uniformed</u>	<u>Pre-Medicare</u>	<u>Age 65+ Not on MC</u>	<u>Medicare</u>	
A. Number of Contracts	2,200	291	476	176	1,817	4,960
B. Annual Subsidy per Contract	n/a	n/a	\$16,602	\$22,016	\$4,159	
C. PV of Future Subsidies (\$millions) for All Employees	\$103.42	\$23.83	\$82.60	\$41.66	\$66.00	\$317.52
D. Percent Expected to Elect Medical at Retirement	100%	100%	100%	100%	100%	
E. Expenses	0%	0%	0%	0%	0%	0%
F. Expected Post-Retirement Benefit Obligation (\$millions)	\$103.42	\$23.83	\$82.60	\$41.66	\$66.00	\$317.51
G. Expected Post-Retirement Benefit Obligation per Contract	\$47,009	\$81,890	\$173,529	\$236,705	\$36,324	\$64,014

-
- A. Exhibit 12.
 B. Exhibit 7
 C. Calculated from B and the age and sex of each contractholder.
 D. Calculation only considered participants who actually elected medical.
 E. Expenses are 0% because the assumed interest rate is net of expenses.
 F. $C \times D \times (1 + E)$
 G. F/A

CITY OF NEWTON
GASB 45 DETERMINATION

CURRENT ANNUAL SUBSIDY - LIFE INSURANCE
 3.75% interest

	<u>Active</u> (1)	<u>Retired</u> (2)	<u>Total</u> (3)
A. Current Average Age of Group	46	74	60
B. Net Single Premium per \$1,000 of Life Insurance	n/a	649.23	448.49
C. % of Total Cost Represented by Full Premium Retirees Pay		69.1%	
D. % of Full Premium Retirees Pay		49.9%	
E. % of Total Cost Retirees Actually Pay Including Implicit Subsidy		34.5%	
F. % of Actual Cost Paid by City		65.5%	

-
- A. Exhibit 12
 B. Calculated based on average age
 C. $I(3)/H(3)$
 D. Exhibit 8
 E. $C \times D$
 F. $1 - E$

CITY OF NEWTON
GASB 45 DETERMINATION

CURRENT ANNUAL SUBSIDY - LIFE INSURANCE
 7.75% interest

	<u>Active</u> (1)	<u>Retired</u> (2)	<u>Total</u> (3)
A. Current Average Age of Group	46	74	60
B. Net Single Premium per \$1,000 of Life Insurance	n/a	445.23	225.73
C. % of Total Cost Represented by Full Premium Retirees Pay		50.7%	
D. % of Full Premium Retirees Pay		49.9%	
E. % of Total Cost Retirees Actually Pay Including Implicit Subsidy		25.3%	
F. % of Actual Cost Paid by City		74.7%	

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- A. Exhibit 12
 B. Calculated based on average age
 C. $I(3)/H(3)$
 D. Exhibit 8
 E. $C \times D$
 F. $1 - E$

CITY OF NEWTON
GASB 45 DETERMINATION

CURRENT ANNUAL SUBSIDY - MEDICAL, Rx AND VISION

	<u>Actives</u> (1)	<u>Pre-Med. Retirees</u> (2)	<u>Med. Retirees</u> (3)	<u>Retirees 65 and Over Not on M.C.</u> (4)
A. Blended Annual Premium per Contract	n/a	\$12,350	\$5,199	\$9,917
B. Actual Annual Cost per Contract	n/a	\$19,072	\$5,199	\$24,000
C. Annual Member Contributions per Contract	n/a	\$2,470	\$1,040	\$1,983
D. Current Annual Subsidy per Contract	n/a	\$16,602	\$4,159	\$22,016

-
- A. Exhibit 8
 B. 154.43% of A for pre-M/C retirees < 65, 242% of A for retirees >65 not on M/C and 100.0% of A for M/C retirees.
 C. Exhibit 8
 D. B - C

CITY OF NEWTON
GASB 45 DETERMINATION

MEMBER CONTRIBUTIONS

	Medical, Rx, <u>Vision</u> (1)	Life <u>Insurance</u> (2)
<u>Pre-Medicare Retirees - < 65</u>		
Blended Monthly Premium per Contract	\$1,029.13	\$9.45
Blended Annual Premium per Contract	\$12,350	\$113.40
Percent Paid By Members	20.0%	49.9%
Current Annual Amount Members Pay	\$2,470	\$56.64
<u>Pre-Medicare Retirees - > 65</u>		
Blended Monthly Premium per Contract	\$826.44	\$9.45
Blended Annual Premium per Contract	\$9,917	\$113.40
Percent Paid By Members	20.0%	49.9%
Current Annual Amount Members Pay	\$1,983	\$56.64
<u>Medicare Retirees</u>		
Blended Monthly Premium per Contract	\$356.16	\$9.45
Total Medicare Part B Monthly Premium	\$77.12	n/a
Blended Stop Loss Premium per Contract	n/a	n/a
Total Blended Monthly Premium per Contract	\$433.28	\$9.45
Blended Annual Premium	\$5,199	\$113.40
% Contractholders Pay	20.0%	49.9%
Current Annual Amount Members Pay	\$1,040	\$56.64

Medical monthly costs calculated from census and premium rates. Life monthly cost from Exhibit 9.
Percent paid by members from Exhibit 10
City reimburses 80% of Medicare Part B premium as well as 80% of regular insurance premium.

CITY OF NEWTON
GASB 45 DETERMINATION

Exhibit 9

LIFE INSURANCE IN FORCE

	<u>Active</u> (1)	<u>Retired</u> (2)	<u>Total</u> (3)
A. Number of Insureds	1,003	1,070	2,073
B. Average Benefit per Insured		\$5,000	
C. Current Amount of Insurance in Force (\$000)		\$5,350	
D. City Share of Life Insurance Monthly Premium		49.95%	
E. Total Monthly Rate/\$1000		\$1.89	
F. Total Annual Premium - City Responsibility		\$60,605	

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- A. Exhibit 12
B. Exhibit 11.

CITY OF NEWTON
GASB 45 DETERMINATION

Exhibit 10

FUNDING INFORMATION

<u>Actives</u>		
Medical		All plans designed for actives are self-insured. Employees pay 20% of blended cost of actives and retirees not on Medicare. Pooling protection is included in the specified premium rates.
Drugs		Included with Medical
Dental		Actives pay <100% of the cost of the coverage.
Life Insurance		Fully insured. Current 100% monthly premium rate is \$9.45 per month for \$5,000 of coverage. Members pay 50% of the total premium - so they pay \$4.72 per month.
<u>Retirees Not on Medicare</u>		
Medical		Same as for Actives
Drugs		Same as for Actives
Dental		For the only plan available, retirees have to pay 100% of the cost of the coverage.
Life Insurance		Same as for Actives
<u>Retirees on Medicare</u>		
Medical		Plans designed for these participants are fully insured. When eligible for Medicare, retiree is transferred to a Medicare Supplement plan.
Drugs and Vision		Since plan is fully insured, stop loss coverage is included in the insurance rates.
Drugs		Same as for Actives
Dental		For the only plan available, retirees have to pay 100% of the cost of the coverage.
Life Insurance		Same as for Actives

Data provided by the City of Newton

CITY OF NEWTON
GASB 45 DETERMINATION

BENEFIT INFORMATION

<u>Actives</u>		
Medical		Choice of Harvard Pilgrim, Tufts EPO and Tufts POS Rates depend on choice of coverage The City only offers Individual and Family plans.
Drugs and Vision		Included if Medical Elected (Drug Copays per Medical Plan Elected Apply)
Dental		Several plans are available.
Life Insurance		All life insurance benefits are a flat \$5,000 with no reduction at retirement.
<u>Retirees Not on Medicare</u>		
Medical		Same Choices as for Actives
Drugs and Vision		Same Choices as for Actives
Dental		Only 1 plan is available. It is not subsidized by the City.
Life Insurance		Same Choices as for Actives
<u>Retirees on Medicare</u>		
Medical		Most participants have elected the Tufts Medicare Complement Plan (Medicare Supplement). A minority have elected Tufts Medicare Preferred, First Seniority Freedom and HMO Blue. Payment of Medicare Part B premiums are the responsibility of the retirees, however City reimburses 80%. Survivors from family contracts can continue coverage until they die. They may also re-enter the plan after initially declining coverage.
Drugs and Vision		Same Choices as for Actives Drug Plan Not Eliminated When Medicare Part D Took Effect
Dental		Only 1 plan is available. It is not subsidized by the City.
Life Insurance		Flat \$5,000

Data provided by the City of Newton

CITY OF NEWTON
GASB 45 DETERMINATION

CENSUS INFORMATION

	<u>General</u> (1)	<u>Uniformed</u> (2)	<u>Elected No Coverage</u> (3)	<u>Total</u> (4)
<u>Actives - Medical</u>				
Number of Contracts	2,200	291	75	2,566
Average Age	44	42		44
Average Service Years	10	15		
<u>Pre-Medicare Retirees - Medical/Under 65</u>				
Number of Contracts	476	Incl in Gen	Incl Above	476
Average Age	59			
<u>Pre-Medicare Retirees - Medical/65 and Over</u>				
Number of Contracts	176	Incl in Gen	Invl Above	176
Average Age	74			
<u>Medicare Retirees - Medical</u>				
Number of Contracts	1,817	Incl in Gen	Invl Above	1,817
Average Age	77			
<u>Life Insurance</u>				
		<u>Average Age</u>		
Number of Contracts - Actives	1,003	46	1,486	2,489
Number of Contracts - Retirees	1,070	74	1,034	2,104
Number Electing Life Insurance - Total	2,073	60	2,520	4,593
Percent of New Retirees Electing Medical				100%
Percent Under-65 Retirees Keeping Medical at Age 65				100%
Percent of Retirees Electing Life Insurance				45%

Data provided by the City of Newton

The City has noted that the declination rate for retiree medical insurance is negligible.